VASCULAR IMAGES

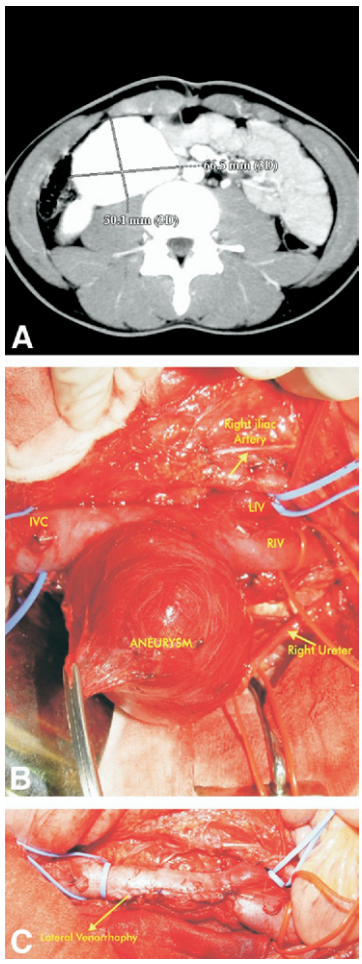
Aneurysm of the inferior vena cava

Kalkunte R. Suresh, MD, FACS, Vivekanand Vivekanand, MS, FVES, Motukuru Vishnu, MBBS, MS, DNB, and Raj Sumanth, MS, *Bangalore, India*

A 21-year man presented with nonspecific mid-abdominal pain, with no other symptoms. Abdominal ultrasound imaging revealed an inferior vena cava (IVC) aneurysm, and the patient was referred for further management.

Physical examination was unremarkable except for mild tenderness in the right lower quadrant. There were no palpable masses or abdominal bruits. The results of laboratory analysis were normal. A computed tomography angiogram (CTA) revealed a 6.65-cm × 5.01-cm saccular aneurysm arising from the right lateral aspect of the IVC at the confluence of iliac veins (A). There was no thrombus in the aneurysm, and there were no other findings on the CTA (Cover image).

Considering his young age, we decided to proceed with surgical repair. The infrarenal IVC and both iliac veins were exposed through a midline laparotomy and right retroperitoneal approach. The right common iliac artery and ureter were adherent to the aneurysm, but could be easily separated (B). The aneurysm was completely resected, and lateral venorrhaphy with continuous 6.0 Prolene (Ethicon, Somerville, NJ) effectively closed the "mouth" of the aneurysm without compromising the caval lumen (C). The patient's recovery was uneventful, and he was discharged on the sixth postoperative day with oral anticoagulation.



DISCUSSION

IVC aneurysms are rare, with only 18 reported cases. They are classified as congenital, acquired, or with arteriovenous fistulae. IVC aneurysms are categorized[1] as type I aneurysm of the suprahepatic IVC, with no venous obstruction; type II aneurysm, with interruption of the IVC above or below the hepatic veins; and type III aneurysm, confined to the infrarenal IVC without associated venous anomaly. Patients can present with varied symptoms of pain, thromboembolism, rupture, and even death.[2] Venography, CTA, and magnetic resonance angiography are the suggested imaging modalities.

Although the therapeutic alternatives range from observation to resection, intervention is advised because of the high incidence of complications. An endovascular stent-graft could be an attractive alternative.

REFERENCES

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2. Jegananthan R, Reid JA, Hannon RJ. Inferior vena cava aneurysm. Surgeon 2003;1:164-5.

From the Jain Institute of Vascular Sciences, Bhagwan Mahaveer Jain Hospital.
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